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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,564	07/03/2001	Kazuto Kobayashi	MM4451	4871

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EXAMINER

DOROSHENK, ALEXA A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,564

Applicant(s)

KOBAYASHI ET AL.

Examiner

Alexa A. Doroshenk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/410,871.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger (1,945,353).

With respect to claim 4, Jaeger discloses a catalytic apparatus which can be used for methanol production (p. 1, lines 95-99) comprising:

- at least one reaction tube (formed by adjacent tubes 4);
- an upper chamber (14) into which gas is fed (p. 2, lines 53-58);
- an inner tube (4) disposed almost in the center of a reaction tube to form a first passageway between the inner and reaction tubes and closed at a lower end (see fig. 1 and p. 2, lines 40);
- said first passageway filled with catalyst (3);
- a central tube (formed by 5) disposed in the center of the inner tube (4) with the central tube extending downwardly from the upper chamber (14) fixed above said lower end of the reaction tube (see fig. 1);
- a shielding plate (6) for partitioning the upper end of the reaction tube from the upper chamber wherein said unreacted gas flows downwards from said upper chamber through the upper part of the central tube flowing from said second passageway through

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said catalyst in said first passageway from the upper end of said first passageway (p. 2, lines 53-66).

Jaeger illustrates wherein the central tube does not span the entire length of the reaction tube in order to operate, but fails to expressly state a range of acceptable lengths. Since Jaeger fails to teach a specific length for the tube, it is held that it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine operable lengths of tube by routine experimentation. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With respect to claim 5, Jaeger further illustrated wherein the inner tube (4) is disposed vertically in the reaction tube (see fig. 1).

Response to Arguments

Drawings

The objections to the drawings have been withdrawn due to applicant's amendments.

Art Rejections

Applicant argues that Jaeger does not disclose a reactor "wherein a circular space surrounded by a reaction tube 3 and an inner tube 6 is constituted as a catalyst-charges part".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

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(i.e., wherein a circular space surrounded by a reaction tube 3 and an inner tube 6 is constituted as a catalyst-charges part) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant appears to be arguing about "first passageway" as recited in claim 4 which is the circular cross section between the inner tube and the reaction tube and filled with catalyst. As the examiner has stated in the rejection, this passage is shown in figure one of Jaeger as element number 3.

Applicant argues that the tube lengths recited in claim four achieve uniform temperature distribution not shown in Jaeger.


Such an assertion is merely attorney's arguments without providence evidence of nonobviousness. The burden of proving unexpected results rests on the party which asserts them. In proving such results, it is not enough just to show that certain results are obtained. The results to be probative of nonobviousness must be shown to have been unexpected to the skilled worker in the art. *In re D'Ancicco*, 439 F.2d 1244, 169 USPQ 303 (CCPA 1971); *In re Klosak*, 455 F.2d 1077, 173 USPQ 14 (CCPA 1972); *In re Juillard*, 476 F.2d 1380, 177 USPQ 1570 (CCPA 1973). Moreover, it is axiomatic that evidence presented to rebut a *prima facie* case of obviousness must be commensurate in scope with the claims the evidence is offered to support. *In re Tiffin*, 448 F.2d 791, 171 USPQ 294 (CCPA 1971).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alexa A. Doroshenk
Examiner
Art Unit 1764